### **DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES Office of Structural Materials Quality Assurance and Source Inspection

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Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

# WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-006057 Address: 333 Burma Road **Date Inspected:** 12-Feb-2009

City: Oakland, CA 94607

**OSM Arrival Time:** 645 **Project Name:** SAS Superstructure **OSM Departure Time:** 1845 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island Contractor: **Location:** Shanghai, China

**CWI Name:** See Below **CWI Present:** Yes No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No **Weld Procedures Followed:** Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes No N/A **Approved Drawings:** Yes No **Approved WPS: Delayed / Cancelled:** Yes No N/A

34-0006 **Bridge No: Component: OBG** Fabrication

**Summary of Items Observed:** 

CWI: Mr. Sun Wei

On this date CALTRANS OSM Quality Assurance (QA) Inspector Mr. Paul Dawson arrived on site at the Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island, in Shanghai, China, for the purpose of monitoring welding and fabrication of the San Francisco / Oakland Bay Bridge (SFOBB) components. The QA Inspector observed the following:

OBG Bay 7

This QA Inspector performed random ultrasonic (UT) inspections of approximately 10 percent length of OBG base plate welds SP165-001-055, SP111-001-064, SP661-001-041, SP138-001-055, SP677-001-031, SP378-001-055 and SP712-001-041. These welds had previously been ultrasonically inspected and accepted by ZPMC inspection personnel and the welds are listed on ZPMC Notification of Witness Inspection document 001972. The QA Inspector observed the welds that were ultrasonically inspected by this QA Inspector appear to comply with AWS D1.5 UT requirements. For additional information on this inspection see the TL6027 Ultrasonic Test Report.

QA Inspector observed ZPMC welder Ms. Jiang Maofang, stencil 201250 is using welding procedure specification WPS-B-T-2233-B-U2-F to make flux cored closed rib splice weld DP507-001-089. Prior to welding the QA Inspector observed the groove area where Ms. Jiang Maofang has been cleaned to bright metal and fit together as specified by the welding procedure specification. Items observed by the QA Inspector appear to comply with

## WELDING INSPECTION REPORT

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project specifications.

The QA Inspector observed ZPMC welder Mr. Li Huabei stencil #59472 is using welding procedure specification WPS-B-T-2342-U2 (U-rib) to make flux cored tack welds on OBG deck plate closed rib weld DP192-001-004. Prior to welding the QA Inspector observed the one worker was verifying zero gap in the weld groove between the closed rib and the baseplate prior to making each tack weld. Items observed by the QA Inspector appear to comply with project specifications.

This QA Inspector performed random final visual and magnetic particle (MT) inspections of OBG diaphragm plate weld DP221-001-147. ZPMC magnetic particle Inspectors had previously completed magnetic particle inspections of this weld. The QA Inspector observed the weld appear to comply with project specifications and the Inspector indicated lot number B254 adjacent to the weld. For additional information on these inspections see the TL6028 Magnetic Particle Test Report and the photograph below.



### **Summary of Conversations:**

See above.

### **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang phone: 150-0042-2372, who represents the Office of Structural Materials for your project.

Inspected By:	Dawson,Paul	Quality Assurance Inspector
Reviewed By:	Clifford, William	QA Reviewer